

### ABSTRACT

A process for forming a pattern according to the invention comprises steps of disposing a mask on a surface of a substrate, and irradiating a resist film with a first energy beam through the mask, forming a first resist pattern by developing the resist film after applying the first energy beam, irradiating the first resist pattern with a second energy beam without through the mask, forming a second resist pattern smaller than the first resist pattern by subjecting the first resist pattern to heat treatment after applying the second energy beam, and patterning the workpiece film by use of the second resist pattern as a mask. As a result, it is possible to provide a process for forming the resist pattern formed on the substrate which can be miniaturized with highly accurate control of size with ease beyond a resolution limit imposed by photolithographic techniques.